

NCDOT Rail Division

# The Rail Report



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April 2018

## NCDOT Locomotive's Emission-Reduction Technology EPA Certified

North Carolina's air will be a bit cleaner starting this year now that the Environmental Protection Agency has certified a specialized emissions reduction system for one of the N.C. Department of Transportation Rail Division's passenger locomotives.

The system, known as a Blended After-Treatment System (BATS), uses catalytic reduction to chemically remove diesel engine emission pollutants from the locomotive's exhaust before it is released into the air. The technology was developed for use on passenger locomotives by California-based Rail Propulsion Systems.



*NCDOT locomotive 1859 fitted with the Blended After-Treatment System (BATS) (Photo: Rail Propulsion Systems)*

The NCDOT Rail Division has collaborated with RPS for the past two years to install and test the functionality of BATS. Specifically, it is designed to reduce four diesel exhaust pollutants: nitrogen oxides, carbon monoxide, hydrocarbons and particulate matter – all of which are identified by the EPA as causing chronic negative health effects such as heart and lung disease.

Charles Edwards, NCDOT Rail Division Acting Director, said NCDOT is the first rail agency in the country to successfully demonstrate the technology on an in-service passenger locomotive. "This is another positive step in our ongoing efforts to be a leader in helping reduce air-pollution levels across the state," Edwards said. "This very cost-effective, innovative technology will help ensure that North Carolina is a wonderful place to live and work in every day."

The EPA certification will enable the Rail Division to pursue state and federal grant opportunities to retrofit BATS onto its full fleet of locomotives, further reducing air pollution along the NCDOT Piedmont route between Raleigh and Charlotte.

Every county along the Piedmont rail corridor has high levels

of one or more types of air pollution, according to the EPA. By implementing the BATS, the Rail Division is working to improve air quality across the state, including in many of the major metropolitan areas which are particularly affected by air pollution.

Ian Stewart, CEO of Rail Propulsion Systems, said the BATS technology will make NCDOT one of the nation's cleanest rail agencies once it is fully retrofitted on the entire fleet.

"The BATS certification is the latest in a series of successes achieved through the collaboration between Rail Propulsion Systems, NCDOT and its engineering group, McDowell Engineers and Associates, and RailPlan mechanics and staff," Stewart said. "This is a major milestone toward efforts to efficiently improve air quality, and North Carolina is leading the way."

**April Railroad Trivia Question:** See answer on page 4.

Which North Carolina Short Line chartered in June 1892 is known as "The Road of Personal Service?"



## The LYNX Blue Line Extension Ribbon Cutting and Inaugural Ride

On February 26, a ribbon cutting was held at the UNC Charlotte - Main Station for the LYNX Blue Line Extension. The service runs between 7th Street Station in Center City, through NoDA (North Davidson) to the UNC Charlotte campus. Chief Deputy Secretary David Howard spoke on behalf of Governor Roy Cooper and NCDOT.

The new service, which began on March 16, adds 9.3 miles and 11 stops to the current route.

The Rail Division is involved in Charlotte's light rail system by providing state safety oversight of their operations.

## NCDOT and the R.J. Corman Railroad Make Safety Improvements at Crossings

The R. J. Corman Railroad/Carolina Lines, NCDOT Division 6, and the NCDOT Rail Division worked together to improve a major highway crossing in Columbus County. The crossing is located on NC 410, Brown Street in Chadbourn. This is a very busy highway with considerable beach traffic during the summer. The crossing consisted of four tracks, all with deteriorated asphalt surfaces, which created a very rough ride for motorists passing through town. As a result of this improvement, R. J. Corman agreed to remove one of the tracks. The crossing surface in the mainline track was replaced with a concrete slab surface, and the two

remaining tracks were resurfaced with new asphalt and rubber rail seal. All of these improvements offer motorists a much smoother ride as they pass through Chadbourn.



*Brown Street before improvements*



*Brown Street before improvements*



*Brown Street after improvements*



*Brown Street after improvements*

## 26th Annual Train Host Meeting Held in Kannapolis



*N.C. Train Host Association Volunteers*

Each year on the first Saturday in March, volunteer train hosts gather from across the state for their Annual Meeting, held this year at the train station in Kannapolis. The hosts enjoy this time of fellowship and presentations from the NCDOT staff. Chief Deputy Secretary David Howard, Kannapolis Mayor Darrell Hinnant, and Acting Rail Division Director Charles Edwards all spoke to the group. Rail Deputy Director Allan Paul presented Rail Division updates, including recent photos of Raleigh Union Station.

New board members were elected, and outgoing board members were thanked for their service to the NCDOT and NC By Train passengers. Outgoing board members included Bob Warner-President, Virgil Hurley-VP of Station Operations, Randy Lindley-Treasurer, Russ Case-VP of Train Operations and Tom Lynch-Past President.

Newly elected officers are President Terry Britt, Vice President of Train Operations John Etheredge, VP of Station Operations Chip Hicks and Treasurer Don Welch.

Certificates were also given to the following members in honor of five, 10, 15 and 20 years of service. **20 Years:** Charles Harper, Virgil Hurley, Ramona Phelps, Robert Phelps. **15 Years:** Edwin Clifton. **10 Years:** Kelly Foster, Mildred Henderson. **Five-Years:** Tennie Barker, Mark Bergen, Monte Brown, Ronnie Finger, Rachael Geischen, Earnestine Goods, Cecil Greene, Kristina Nakagawa, Tim Nickens, Frank Pearce, Jean Saunders, Myra Spillman.



*BeRailSafe's Roger Smock updated hosts on new safety initiatives dealing with pedestrian trespassers.*



*Amtrak managers in attendance included (l to r): Conductor Josh Reed, Raleigh Train Master Rick Wilson, Asst. Supt. Transportations Gary Israelson, and Road Forman Amy Sine*



*Customer Service Agent Tim McHugh introduced hosts to the new CEO of Amtrak and updated them on transit passes and events.*



*Chief Deputy Secretary David Howard thanked the Train Hosts for their service to the State of North Carolina.*



*Acting Rail Division Director Charles Edwards thanked the hosts for their volunteer work.*



*New President Terry Britt presents outgoing President Bob Warner with Certificate of Appreciation*



*Rail Deputy Director Allan Paul gives the "State of the Rail Address" and a photographic tour of the Raleigh Union Station, which will be opening in May.*

## Jack Moore Retired Feb. 28 with 22 Years Service to the NCDOT Rail Division



Jack is presented the Order of the Long Leaf Pine by Engineering Coordination and Safety Manager Jahmal Pullen. He also received the Golden Spike, awarded to Rail Division employees who retire with ten-plus years service to the division.

When Jack Moore joined the Rail Division as Safety Inspector, he brought to the job a wealth of rail safety knowledge and experience regarding state and federal railroad regulations. During his tenure, Jack made many contributions to the rail safety industry at both the state and national level, and helped the FRA implement new policies, procedures and enforcement methods. He was frequently called on to communicate on status and issues concerning safety to local, state and federal officials, as well as the FRA, FTA, NTSB, Homeland Security, NC Department of Emergency Management and local law enforcement agencies. Jack also played an important role in providing guidance and oversight concerning track safety for the CATS light rail system in Charlotte. He will be missed by his coworkers and colleagues in the rail industry. We wish him the best in retirement.

**April Railroad Trivia Answer: The Aberdeen and Rockfish Railroad. Serving the Sandhills area of South Central North Carolina, the A & R is one of the oldest continuously operated and privately owned short line railroads in the United States.**

## Annual Visit NC 365 Conference held in Winston-Salem

On March 4-6, Rail Operations Customer Service Staff members Alison Boswell and Tim McHugh attended the Visit NC 365 Conference, which is the state's premier travel industry event. More than 500 of the state's tourism industry leaders attend the conference to catch up on the latest trends and issues facing the travel industry, hear insights from industry experts and network with other travel and tourism professionals.

During the *Visit North Carolina Update: Going Forward* seminar, a shout out was given to the Raleigh Union Station project, which is near completion, and the Charlotte Gateway Station project. NCDOT was credited with being a good ally for the tourism industry.



## Ridership & Revenue on NC By Train Service – Jan. 2018 vs. 2017

	RIDERSHIP			REVENUE		
	2018	2017	% +/-	2018	2017	% +/-
<i>Piedmont</i>	10,453	10,215	2%	\$55,904	\$52,376	7%
<i>Carolinian</i>	18,006	18,617	-3%	\$90,803	\$90,469	0.4%

**875**



Hours Volunteered by N.C. Train Hosts in January, supporting NC By Train onboard and at events

January 2018 service modifications affected three *Piedmont* trains. On Jan. 18, trains 73 and 74 were cancelled entirely due to snow and ice from Winter Storm Inga. On Jan. 30, train 74 was cancelled between Durham and Raleigh due to a vehicle strike at a railroad crossing; alternate transportation was provided for passengers. Average gasoline prices remained low in Jan. 2018 but were 16¢ a gallon higher than in Jan. 2017.

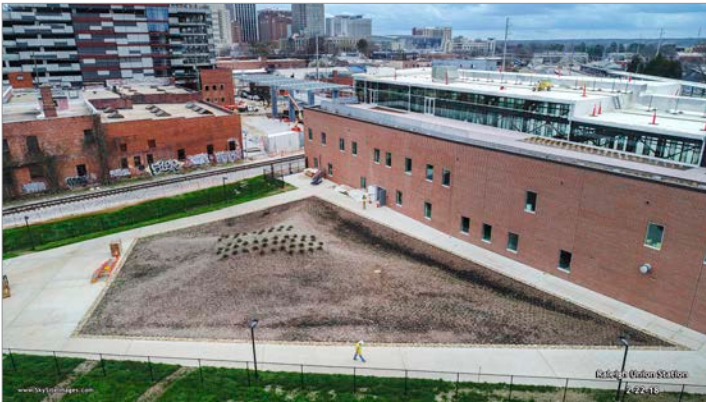
# Raleigh Union Station Update



East view of station and track work



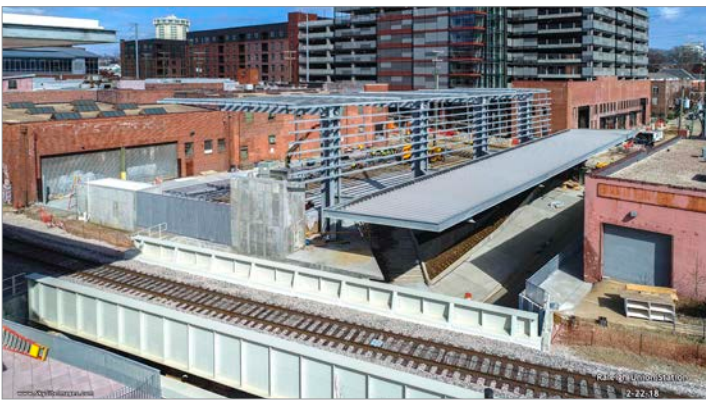
Passenger drop off area to right of station



Emergency refuge area and pollinator garden



Center island platform and canopy



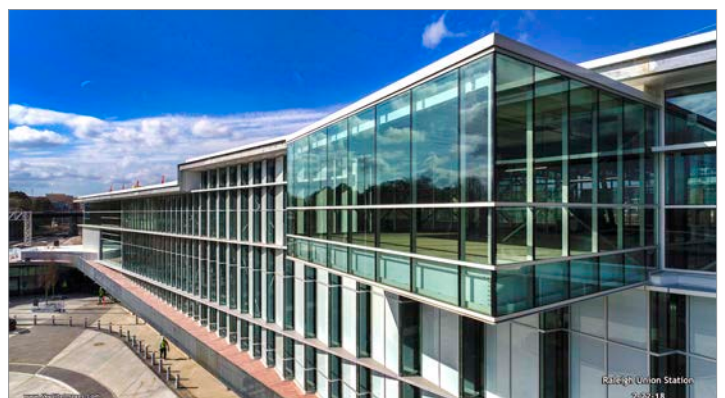
View of new Martin Street railroad bridge



Plaza and sidewalk canopies



Third floor exterior plaza



Southeast elevation

## Charlotte Locomotive and Railcar Maintenance Facility–March 2018



*New Charlotte Yard view south to administration building and layover tracks*



*Charlotte Yard looking west*